UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/975,342	10/11/2001	Michael Cheng	AUS920010685US1	9795

7590 06/10/2005	EXAMINER .
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ART UNIT	PAPER NUMBER
2194	

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DATE MAILED: 06/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/975,342	CHENG ET AL.
	Examiner	Art Unit	
	Li B. Zhen	2194	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>14 March 2005 and 31 May 2005</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-7,9-22 and 24-33</u> is/are pending in the application.

  4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) <u>33</u> is/are allowed.

6)☒ Claim(s) <u>1-7,9-22 and 24-32</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

  a)☐ All b)☐ Some * c)☐ None of:

  1.☐ Certified copies of the priority documents have been received.

  2.☐ Certified copies of the priority documents have been received in Application No. _____.

  3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
  application from the International Bureau (PCT Rule 17.2(a)).

  * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)   4)☐ Interview Summary (PTO-413)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)   Paper No(s)/Mail Date. _____ .
3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)   5)☐ Notice of Informal Patent Application (PTO-152)
  Paper No(s)/Mail Date _____ .   6)☐ Other: _____ .

DETAILED ACTION

1.   Claims 1 – 7, 9 – 22 and 24 – 33 are pending in the current application.

Allowable Subject Matter

2.   Claim 33 is allowed.

Response to Arguments

3.   Applicant's arguments with respect to the claims have been considered but are

moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 101

4.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
> matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
> conditions and requirements of this title.

5.   Claims 29 and 30 are rejected under 35 U.S.C. 101 because the claimed

invention is directed to non-statutory subject matter.

Claims 29 and 30 are not limited to tangible embodiments. In view of Applicant's

disclosure, specification page 21, lines 1-10, the medium is not limited to tangible

embodiments, instead being defined as including both tangible embodiments (e.g.,

recordable-type media, such as a floppy disk, a hard disk drive, a RAM, CD-ROMs,

DVD-ROMs) and intangible embodiments (e.g., wired or wireless communications links

using transmission forms, such as, for example, radio frequency and light wave

transmissions). As such, the claim is not limited to statutory subject matter and is

therefore non-statutory.

6.   Claims 16 – 22 and 24 – 28 are rejected under 35 U.S.C. 101 because the

claimed invention is directed to non-statutory subject matter.

     Claims 16 – 22 and 24 – 28 are not tangibly embodied in a manner so as to be

executable because the only hardware is in an intended use statement. Although the

operations defined in these claims may include hardware, the claims are not tangibly

embodied because it is the intent of the execution of the system and not the system

itself that includes such hardware.

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

8.   **Claims 9, 11-13, 15, 24, 26-28, 30 and 32 are rejected under 35 U.S.C. 103(a)**

as being unpatentable over U.S. Patent No. 6,269,378 to Quirt [cited in previous

office action] in view of U.S. Patent No. 6,438,590 to Gartner et al. [hereinafter

referred to as Gartner].

9.   As to claim 9, Quirt teaches the invention substantially as claimed including a

method in a data processing system for obtaining object references, the method

comprising:

receiving a request for an object reference [When the Local Name Service 402

receives the message from the software object A 400; col. 10, lines 23 – 57];

searching a name space for the object reference [off-node Name Service 404

performs its search operation 416; col. 10, lines 29 – 30]; and

responsive to locating the object reference [off-node Name Service 404 sends

back to the Local Name Service 402 message 418 with the reference to the software

object B 406; col. 10, lines 31 – 33], sending the object reference to a destination [local

Name Service 402 uses as its own identity in the locate message 414 the same fake

object reference that it issued in the acknowledgement message 412 sent to the

software object A 400. The Local Name Service 402 updates the corresponding record

in its data structure 160; col. 10, lines 33 – 57], wherein the destination bind the object

reference [The Local Name Service 402 is now able to provide an immediate valid

response to a future query for look-up of the formerly missing persistent name of B 406;

col. 10, lines 35 – 50].

10.   Although Quirt teaches the invention substantially as claimed, Quirt does not

specifically teach a request including a source name space path, an identification of a

destination, and a destination name space path, searching a name space using the

source name space path, sending the object reference to a destination using the

identification of the destination, binding the object reference using the destination name

space path.

However, Gartner teaches a preferential naming service [214, Fig. 2; col. 7, lines

13 – 27], naming service [242, Fig. 2; col. 7, lines 13 – 27], a request including a source

name space path [request to a preferential naming service may include one or more of

the following items of information: an object identifier, a signature criteria, a location

criteria, a version criteria, a date last modified criteria for data encapsulated by the

object, and search criteria; col. 24, lines 38 – 67], an identification of a destination

[Remote program execution may be invoked in cooperation with an alternate ORB

and/or alternate operating system on the destination node; col. 8, lines 24 – 31], and a

destination name space path [an intranet or internet application, remote object

references passed between communication nodes may include source and destination

information; col. 24, lines 55 – 67], searching a name space using the source name

space path [Search criteria may include any of the following items of information: a

starting point, a method of search, a time allotment for remote response, a time

allotment for local activation, a syntactically formal SQL query statement (or equivalent),

a file system or naming system pathname having wildcards; col. 24, lines 38 – 67],

sending the object reference to a destination using the identification of the destination

[PNS 214 may determine an object reference to be returned in accordance with the

policy by considering individual criteria of the request in a prioritized sequence until one

candidate remains; col. 9, lines 57 – 67], and binding the object reference using the

destination name space path [At step 414, a virtual link from object 262 to PNS 214 is established; col. 16, lines 1 – 6].

11.   It would have been obvious to a person of ordinary skill in the art at the time of the invention to apply the teaching of a request including a source name space path, an identification of a destination, and a destination name space path as taught by Gartner to the invention of Quirt because this provides a policy that includes any data or object read or otherwise accessed by a preferential naming service (PNS) that governs selection between indicia of various objects to provide an object reference [col. 9, lines 4 – 18 of Gartner].

12.   As to claims 11 and 12, Quirt teaches the identification of the destination is a universal resource locator and the request is a POST request [TCP/IP protocol; col. 11, lines 52 – 61].

13.   As to claim 13, Quirt as modified teaches converting the object reference to a standard common object request broker architecture object prior to sending the object reference to the destination [manage translation of communications and operations between ORBs of different types; col. 7, lines 44 – 64 of Gartner].

14.   As to claim 15, this is a system claim that corresponds to method claim 9; note the rejection to claim 9 above, which also meets this system claim.

15.   As to claims 24 and 26 – 28, these are system claims that correspond to method

claims 9 and 11 – 13; note the rejection to claims 9 and 11 – 13 above, which also meet

these system claims.

16.   As to claim 30, this is a product claim that corresponds to method claim 9; note

the rejection to claim 9 above, which also meets this product claim.

17.   As to claim 32, Quirt as modified teaches the name space of the source name

space path uses a different object request brokering architecture than a destination

name space of the destination name space path [manage translation of communications

and operations between ORBs of different types; col. 7, lines 44 – 64 of Gartner].

18.   **Claims 1-7, 10, 14, 16-22, 25, 29 and 31 are rejected under 35 U.S.C. 103(a)**

as being unpatentable over Quirt and Gartner further in view of U.S. Patent No.

6,633,923 to Kukura et al. [hereinafter referred to as Kukura, cited in previous

office action].

19.   As to claim 1, Quirt as modified teaches the invention substantially as claimed

including a method in a data processing system for binding object references from a

remote name space into a local name space, the method comprising:

collecting information to create a request to bind an object reference [software

object in the software system registers with the Name Service by sending its persistent

Name, software object reference and other relevant information to the Name Service in

the form of a registration message; col. 8, lines 22 – 33 of Quirt], wherein the request

includes an identification of a source [request to a preferential naming service may

include one or more of the following items of information: an object identifier, a signature

criteria, a location criteria, a version criteria, a date last modified criteria for data

encapsulated by the object, and search criteria; col. 24, lines 38 – 67 of Gartner], a

source name space path [Search criteria may include any of the following items of

information: a starting point, a method of search, a time allotment for remote response,

a time allotment for local activation, a syntactically formal SQL query statement (or

equivalent), a file system or naming system pathname having wildcards; col. 24, lines

38 – 67 of Gartner], an identification of a destination [Remote program execution may

be invoked in cooperation with an alternate ORB and/or alternate operating system on

the destination node; col. 8, lines 24 – 31 of Gartner], and a destination name space

path used to bind the object reference [an intranet or internet application, remote object

references passed between communication nodes may include source and destination

information; col. 24, lines 55 – 67 of Gartner];

forwarding the request to a source application server [software object 300 sends

a registration message 308 to the Name Service requesting that a registration be made.

The registration message 308 includes a scope parameter indicating that the

registration is to be performed at a central level (in the Central Name Service, in the

Local Name Service 302 and in the associated Cluster Name Service); col. 8, lines 40 –

48 of Quirt];

searching for the object reference in the remote name space [Name Service can

perform remote searching to translate the persistent name to a suitable software object

reference; col. 5, lines 10 – 18 of Quirt];

responsive to locating the object reference attaching the interoperable object

reference to the request [Local Name Service 302 then sends a message 312 its

associated Cluster Name Service 304; col. 8, lines 49 – 62 of Quirt];

redirecting the request to a destination application server [Local Name Service

302 then sends a message 312 its associated Cluster Name Service 304 requesting

that the software object reference be registered; col. 8, lines 49 – 62 of Quirt]; and

binding the object reference into the local name space on the destination

application server [Cluster Name Service 304 creates the same entry 314 in its table;

col. 8, lines 49 – 62 of Quirt].

20.   Although Quirt as modified teaches the invention substantially as claimed, Quirt

as modified does not specifically teach serializing an object reference and converting a

serialized interoperable object reference back to an object reference.

However, Kukura teaches serializing an object reference and converting a

serialized interoperable object reference back to an object reference [Optimize the

performance of marshaling and demarshaling (and therefore conversion to and from

strings) of IORs; col. 43, lines 45 – 48].

21.   It would have been obvious to a person of ordinary skill in the art at the time of

the invention to apply the teaching of serializing an object reference and converting a

serialized interoperable object reference back to an object reference as taught Kukura

to the invention of Quirt as modified because this formats the request message in such

a way that all the interconnected computers can understand and respond to the request

message [col. 1, lines 29 – 45 of Kukura].

22.   As to claim 2, Quirt teaches the collecting step and the forwarding step are

performed in a request application server [col. 8, lines 22 – 34].

23.   As to claim 3, Quirt teaches the searching step, the serializing step, the attaching

step, and the redirecting step are performed in a source application server [col. 8, lines

49 – 62.

24.   As to claim 4, Quirt teaches the converting step and the binding step are

performed in a destination application server [col. 8, lines 49 – 62].

25.   As to claim 5, Quirt teaches the collecting step is performed using a Java server

page [col. 4, lines 1 – 5].

26.   As to claims 6 and 7, Quirt teaches the request is a POST request and the

request is sent using hypertext transport protocol [TCP/IP protocol; col. 11, lines 52 –

61].

27.   As to claim 10, Quirt as modified teaches serializing the object reference prior to

sending the object reference to the destination [col. 43, lines 45 – 48 of Kukura].

28.   As to claim 14, this is a system claim that corresponds to method claim 1; note

the rejection to claim 1 above, which also meets this system claim. Examiner notes that

a bus system, a communications unit connected to the bus system, and a memory

connected to the bus system are inherent to a computer system.

29.   As to claims 16 – 22, these are system claims that correspond to method claims

1 – 7; note the rejection to claims 1 – 7 above, which also meet these system claims.

30.   As to claim 25, this is a system claim that corresponds to method claim 10; note

the rejection to claim 10 above, which also meets this system claim.

31.   As to claim 29, this is a product claim that corresponds to method claim 1; note

the rejection to claim 1 above, which also meets this product claim.

32.   As to claim 31, Quirt as modified teaches the local name space uses a different

object request brokering architecture than the remote name space [manage translation

of communications and operations between ORBs of different types; col. 7, lines 44 –

64 of Gartner].

Conclusion

33.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Li B. Zhen whose telephone number is (571) 272-3768. The examiner can normally be reached on Mon - Fri, 8:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Li B. Zhen
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